2006

ETD Access and Discovery: Enhancing Public Access and Discovery of the Research at Florida State University

Plato Smith II

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University of Missouri – St. Louis

FLORIDA STATE UNIVERSITY LIBRARIES

ETD 2006
U.S. Regional Conference
Revealing the Potential of ETDs

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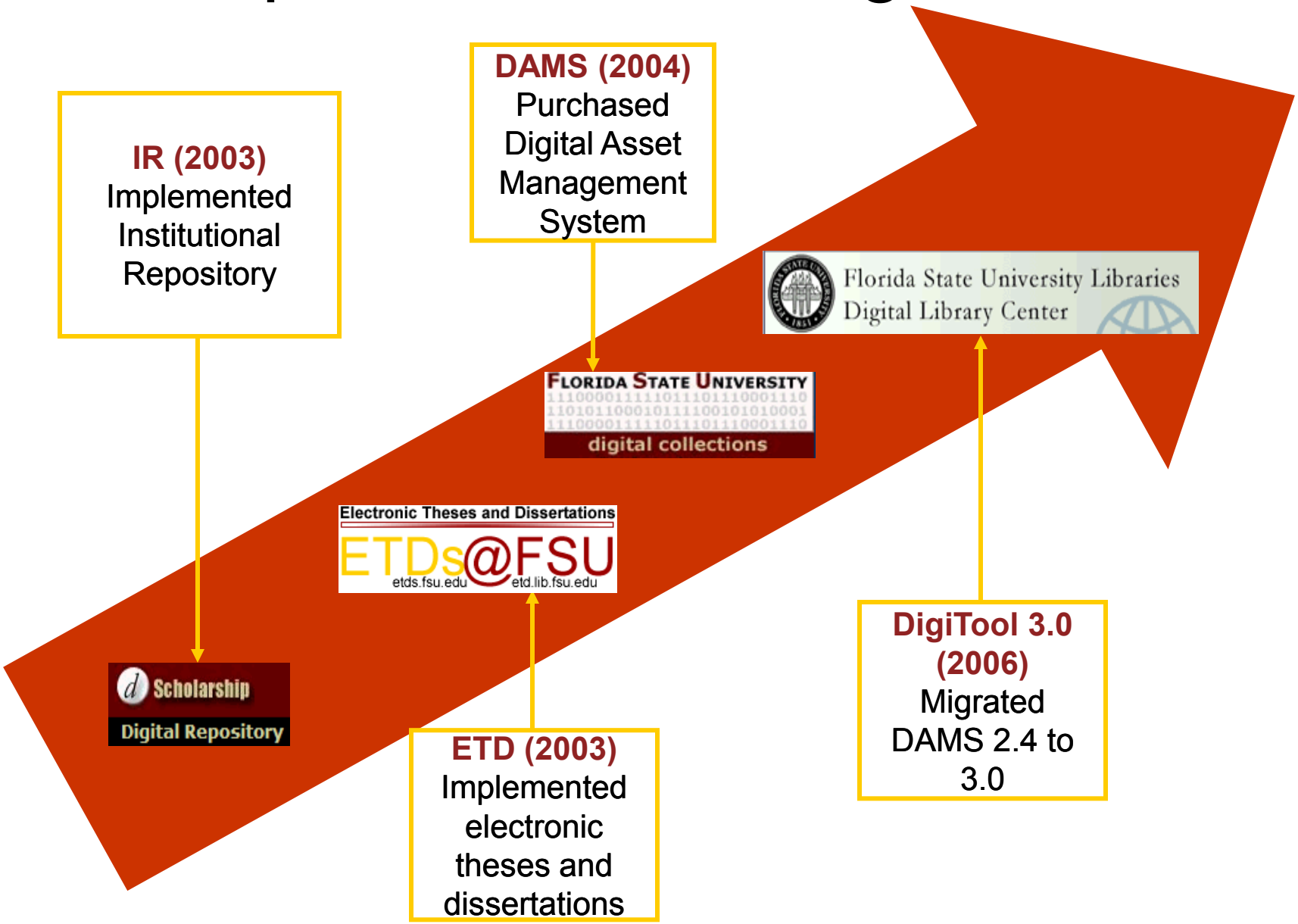
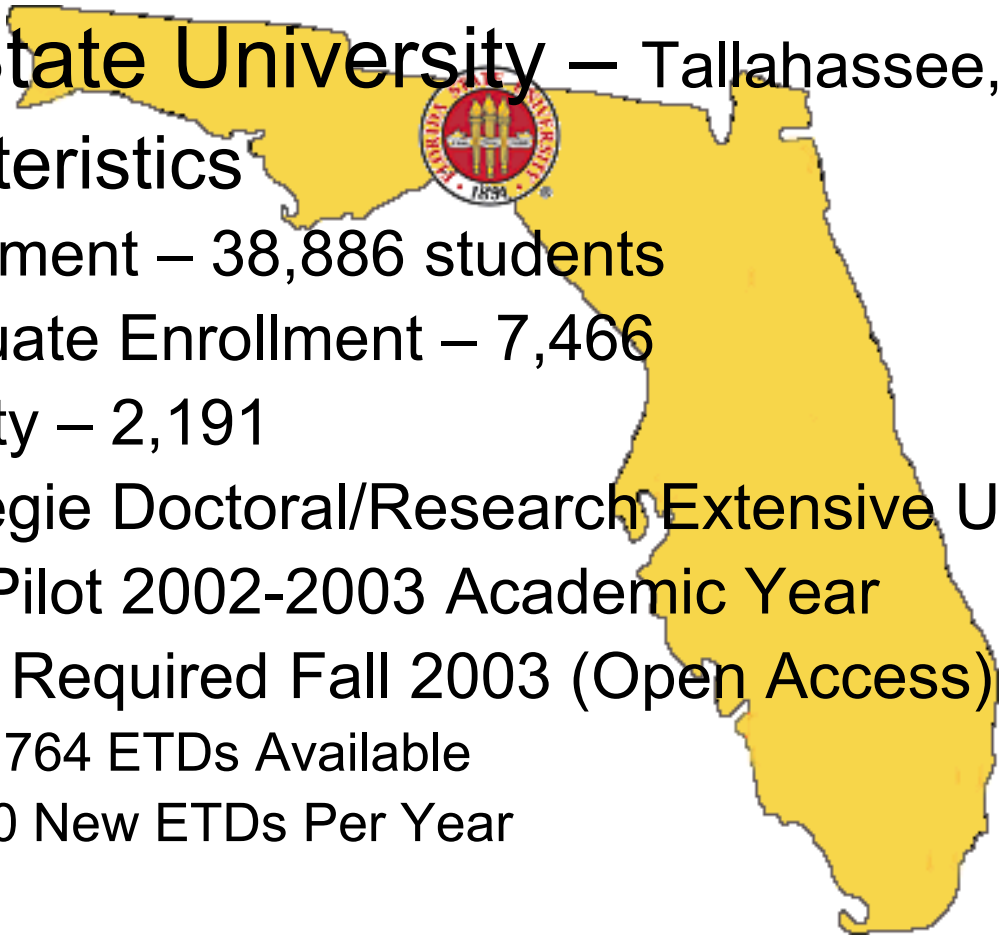
Development of FSU Digital Assets



ETDs@FSU

- Florida State University – Tallahassee, FL USA
  - Characteristics
    - Enrollment – 38,886 students
    - Graduate Enrollment – 7,466
    - Faculty – 2,191
    - Carnegie Doctoral/Research Extensive University
    - ETD Pilot 2002-2003 Academic Year
    - ETDs Required Fall 2003 (Open Access)
      - 14,764 ETDs Available
      - 450 New ETDs Per Year



Plans to consolidate all FSU digital assets platforms to DigiTool 3.0 platform

- D-Scholarship Repository (BEPress EdiKit platform)
  - General Collection (i.e. conference presentations, papers, technical papers, etc.)
  - Oceanography Research and Technical Reports (FSU Department of Oceanography)
  - FSU Undergraduate Honors in the Major Theses Collection
- ETDs@FSU (etd-db platform)
  - ETDs@FSU 2003 - Present

Welcome to the FSU Libraries DLC Digital Repository

This respository will provide access to a variety of FSU Libraries DLC digital collections including "open access" ETDs. We plan to increase all digital collections, add digitized images and oral history audio files to FSU Special Collections EAD Finding Aids Inventories, and seek to build new and unique digital collections.

Use the Simple or Advanced Search form to search for a specific item or click on the collection links to browse the collections.

Simple Search | Advanced Search

Select collection: General

GO

A word or phrase: ( ) Contains ( ) Exact ( ) Starts With

Collections

FSU D-Scholarship (423)

FSU Undergraduate Honors in the Major Theses , General Collection , Oceanography Research and Technical Reports

FSU Electronic Theses and Dissertations (9907)

ETDs@FSU 2003-Present , FSU Dissertations 1952-1997 , FSU Historic Early Theses

FSU Heritage Protocol Collection (20)

FSU History and Heritage Collections (2719)

FSU "Flying High" Circus , FSU Historical Photographs

FSU Special Collections (108)

FSU Special Collections EAD Finding Aids Inventories , FSU Digitized Juvenile Literature

FSU Electronic Theses and Dissertations

FSU Electronic Theses and Dissertations More...

ETDs@FSU 2003-Present (1)

ETDs@FSU 2003-Present More...

FSU Dissertations 1952-1997 (9076)

FSU Dissertations 1952-1997 More...

FSU Historic Early Theses (830)

FSU Historic Early Theses More...

Collection Information

Collection: **ETDs@FSU 2003-Present**

FSU Electronic Theses and Dissertations (ETDs@FSU) Collection represents theses and dissertations in eletronic format from 2003 to present from ETD-db institutional repository with support and cooperation from various campus colleges, departments, and partners. Authors are required to complete and sign FSU Access Agreement Form prior to publishing. Please note some ETDs are delayed, restricted, and withheld and are governed by the Office of Graduate Studies.

Steps to Deposit ETDs in DigiTool 3.0

Students – Complete ETD Access Agreement Forms prior to deposit controlling access to ETDs

Students – Create metadata and deposit ETD as a PDF (1-3 PDF files) via DigiTool Web Deposit Module

Office of Graduate Studies – Review and approve ETDs for deposit via Approver Module

Digital Library Center – DLC staff ingest ETDs into Repository via Ingest Module which provides access via Resource Discovery interfaces

DigiTool - Deposit
DIGITAL ASSET MANAGEMENT

User: DLC Staff **Admin Unit:** [FSU01] standard description

1

Choose type of object to be submitted

Type of object:

- ○ HP Audio/Video
- ○ HP Manuscript
- ○ HP Image
- ○ HP Standard Submission Form
- ○ EAD
- ◉ ETD
- ○ DLC Audio/Video
- ○ DLC Image
- ○ DLC Manuscript
- ○ DLC Standard Submission Form

The following wizard will assist you with the submission of manuscript resources into the Institutional Repository.

During the deposit process, you will be asked to fill in some information about the deposited material, e.g. Title, Date of creation, etc. Mandatory information is marked with an asterisk to the left of the field.

Currently, we accept only three files per manuscript deposit, which must be in PDF format. Deposited items will not appear in the Institutional Repository until they have been checked and approved by the FSU Office of Graduate Studies.

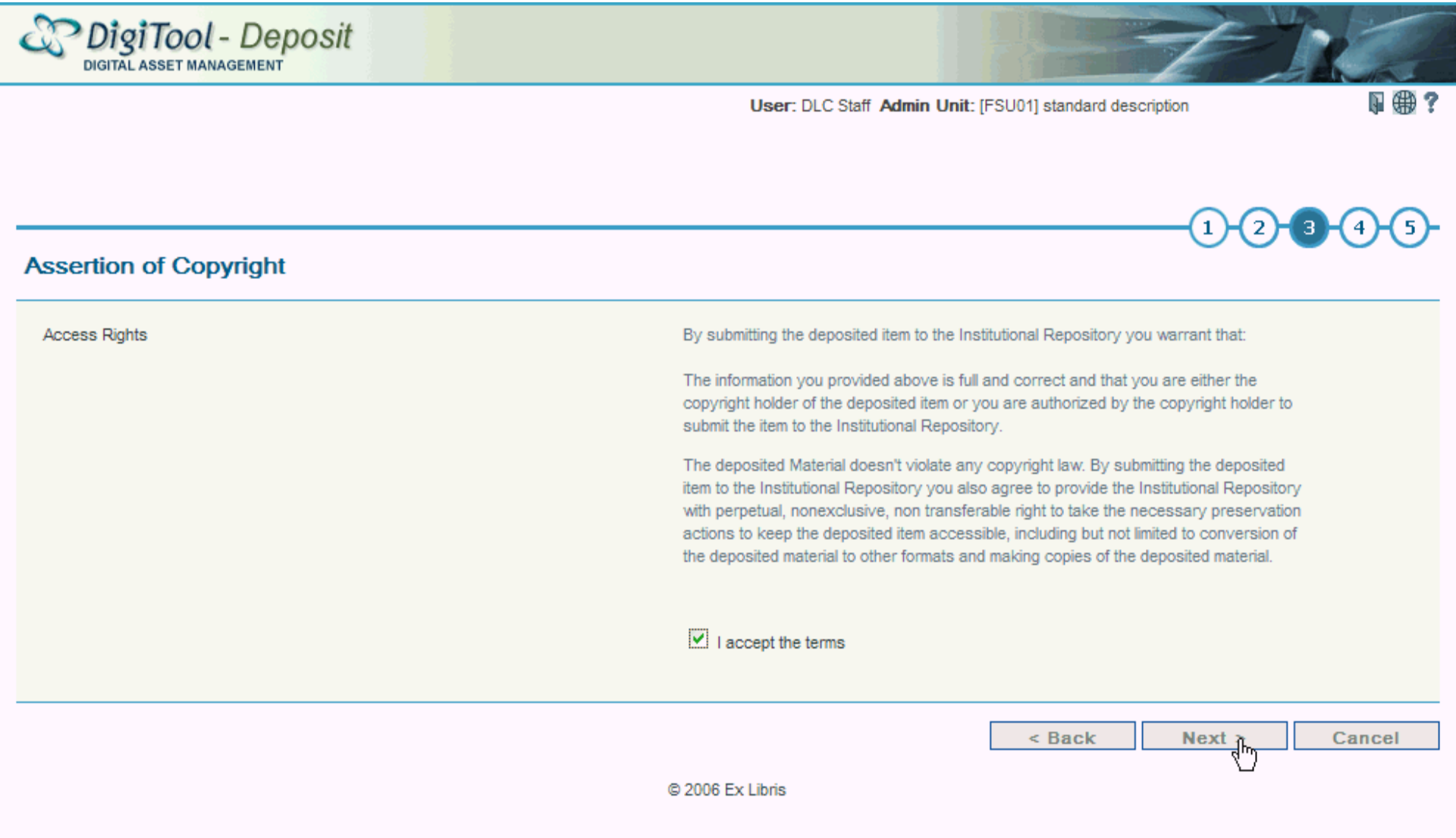
Next > Cancel

Steps to Deposit ETDs in DigiTool 3.0 Metadata Creation

Descriptive Information

* Collection_Id	etd03
* Type of Document	○ Thesis ◉ Dissertation
* Author	Asbury, Thomas
Author's Email	
URN Reference	etd-05172006-182808
* Title	From Data to Structure: Using Orientational Information Within PISEMA Spectra to Build Atomic Models
* Degree	◉ PhD ○ Master
* Department	Molecular Biophysics, Institute of
* Advisor Committee Chair	Richard Bertram
* Advisor Committee Member	Jack R. Quine
* Advisor Committee Member	Michael S. Chapman
Advisor Committee Member	Piyush Kumar
Advisor Committee	Timothy A. Cross

Steps to Deposit ETDs in DigiTool 3.0
Access Rights



Steps to Deposit ETDs in DigiTool 3.0
Metadata Record Preview

Brief Information and Confirmation

Activity Information:

Id:	445104
Type:	ETD

Local files:

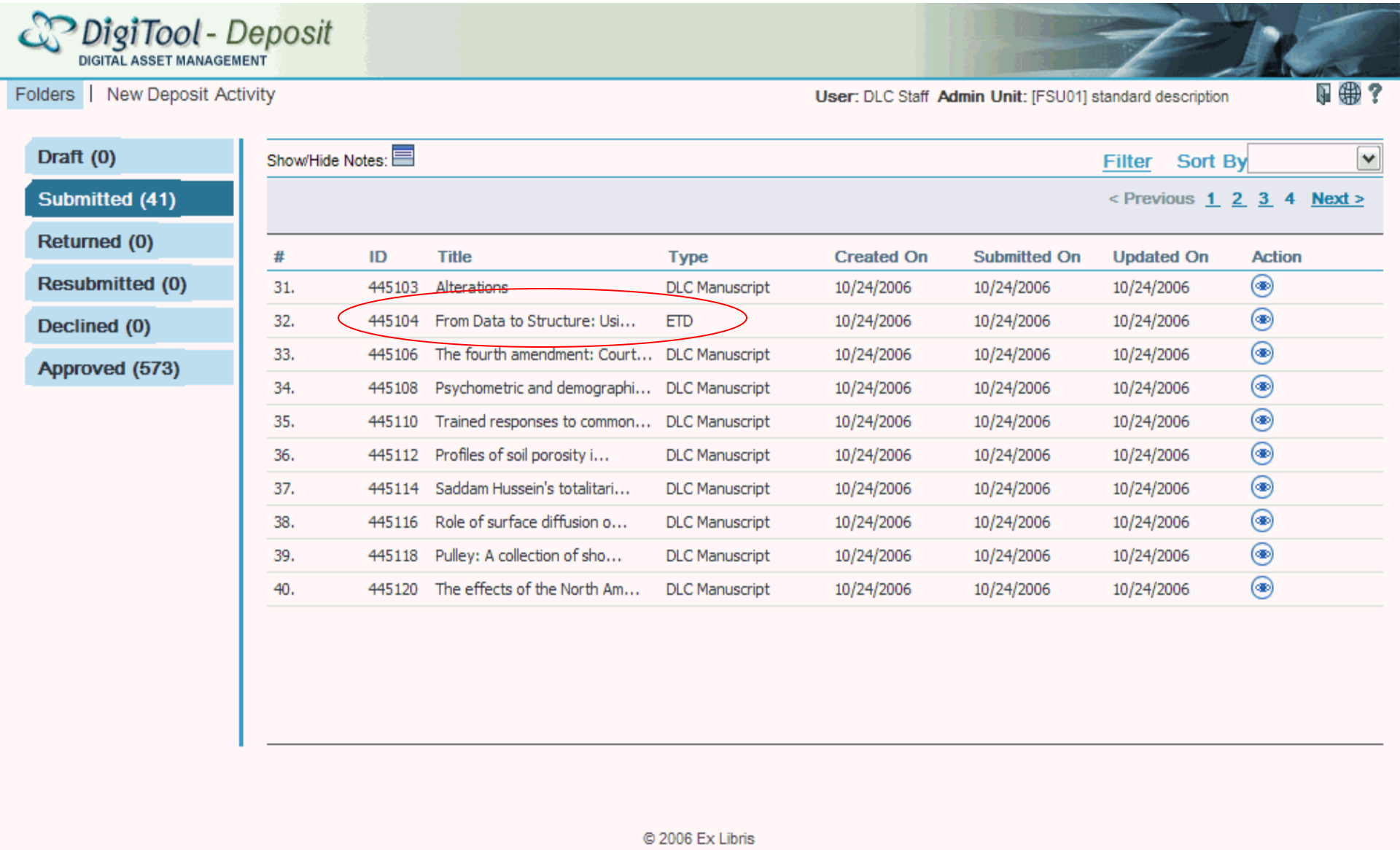
etd-05172006-182808.pdf

Descriptive Information:

External files:

Collection_Id	etd03
Type of Document	Dissertation
Author	Asbury, Thomas
Author's Email	
URN Reference	etd-05172006-182808
Title	From Data to Structure: Using Orientational Information Within PISEMA Spectra to Build Atomic Models
Degree	PhD
Department	Molecular Biophysics, Institute of
Advisor Committee Chair	Richard Bertram
Advisor Committee Member	Jack R. Quine
Advisor Committee Member	Michael S. Chapman
Advisor Committee Member	Piyush Kumar
Advisor Committee	Timothy A. Cross

Steps to Deposit ETDs in DigiTool 3.0 Deposit



Steps to Deposit ETDs in DigiTool 3.0 Resource Discovery

Steps to Deposit ETDs in DigiTool 3.0 Resource Discovery

Object	etd-05172006-182808 - PDF Document (22 M)
Record number	000013336
Identifier	etd-05172006-182808
Title	From Data to Structure: Using Orientational Information Within PISEMA Spectra to Build Atomic Models
Creator	Asbury, Thomas
Subject	Molecular Biophysics, Institute of
Subject	Solid-state NMR; Membrane proteins; Influenza A; Structural biology
Audience	Committee Chair - Richard Bertram; Committee Member - Jack R. Quine; Committee Member - Michael S. Chapman; Committee Member - Piyush Kumar; Committee Member - Timothy A. Cross
Description	Dissertation
Description	PhD
Description	Atomic structure determination of membrane proteins is an important problem. Because of the difficulties in crystallization andtraditional NMR techniques using membrane proteins, other experimental methods are being developed and investigated. One such method, the solid-state NMR PISEMA (Polar Inversion Spin-Exchange at the Magic Angle) experiment, determines orientational contraints for the target membrane protein. These constraints can be used to build a high resolution atomic model.This dissertation presents a detailed analysis of the PISEMA experimental data set and how it can be used to derive atomic structure. One of the aspects of the data set is that it is degenerate, that is, the orientational information measured by the data does not uniquely describe atomic locations. Thus, there are many possible structures that would provide the same data. An important goal of this work is to enumerate and characterize these degeneracies throughout each phase of model building and provide computational tools to manage them.The process of building atomic models from PISEMA data involves three major steps: assignment, initial model building and atomic refinement. For each step we present new software that is intended to aid in the model building process. The tools are designed to be used consecutively with limited, though significant, human intervention.The last section of the dissertation presents an application of our tools to a new PISEMA data set, from which we derive the first high-resolution atomic structure of the transmembrane portion of the M2 proton channel from the Influenza A virus in the presence of amantadine.For this case, we explain both the data processing and decision making that determined the final atomic model. It is likely that this semi-automated procedure will be applicable to other transmembrane protein PISEMA data sets.
Date	05/01/2006

Developments & Implementation Issues

- FSU ETD Access Agreement Form with Creative Commons License (nc-nd2.5) - **9/2006**
- Full-text indexing capability in DigiTool 3.0
- Easy searchability between Metalib and DigiTool
  - FSU DigiTool recently added to Metalib Central Knowledgebase - **10/2006**
- Must sell DigiTool 3.0 to stakeholders
- Migration & metadata mapping issues
- Preservation & Archiving plans (i.e. LOCKSS)

Thank You

- FSU DigiTool 3.0 Collections
  http://digitool3.lib.fsu.edu/R/